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Cecal Volvulus: A Rare Cause of Intestinal Obstruction

Çekal Volvulus: Bağırsak Tıkanıklığının Nadir Bir Nedeni

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Abstract

Cecal volvulus is a rare cause of intestinal obstruction. In this report, we present a 41 year-old patient with cecal volvulus, and we discuss this very rare entity.

Key Words: Cecum, Obstruction, Volvulus

Özet

Çekal volvulus, bağırsak tıkanıklığının nadir bir nedenidir. Bu yazıda çekal volvuluslu 41 yaşında bir hasta sunulmakta ve bu çok nadir durum tartışılmaktadır.

Anahtar Kelimeler: Çekum, Tıkanıklık, Volvulus

Introduction

Cecal volvulus is a rare cause of intestinal obstruction thatoccurs 1-1.5% of all intestinal obstructions [1]. Although it generally present as a small bowel obstruction [2], clinical symptoms, signs, and routine laboratory tests arenot spesific to the disease [3], whileCT is more diagnostic [4]. Surgical intervention is the only treatment of cecal volvulus [1]. The prognosis of the disease may be poor with a 0-40% mortality rate depending on the bowel viability or gangrene [1, 3].

In this report, we present a 41 year-old patient with cecal volvulus with mobile cecum and incomplete visceral rotation.

Case Report

A 41 year-old female patient admitted to the hospital with a three-day history of abdominal colicky pain, distension, and vomiting. Clinical examination demonstrated a distended abdomen with hypokinetic bowel sounds. Laboratory tests revealed an increased leucocyte count. Plain abdominal x-ray graphy showed small intestinal air-fluid levels. The diagnosis was intestinal obstruction.

An urgent laparotomy was performed after a poroper resuscitation. Operative findings demonstrated a cecal volvulus with terminal ileum and right colon gangrene (Figure 1). Cecum was mobile and visceral rotation was incomplete. After the resection of gangrenous bowel segments, intestinal continuity was provided by an ileotrasvers anastomosis.The patient revealed an uneventful recovery. Histopathological examination reported acute gangrenous ileitis, colitis and appendicitis.

Discussion

Cecal volvulus is caused by axial twisting of the cecum along with the terminal ileum and ascending colon [2]. It is responsible for approximately 1-1.5% of all intestinal obstructions, while 11% of all volvulus-related intestinal obstructions, and its incidence is 2.8-7.1 cases per million annually [1]. Most of the cecal volvulus reports are from Asia [1], and the disease occurs less frequently than sigmoid volvulus [2], which is also common in Asia, as well as in Turkey, particularly in our region, eastern Anatolia [5]. The present patient is our only cecal volvulus case in the recent 10 years.

Many factors have been referred as correlated to cecal volvulus development, mainly anatomical predispositions such as incomplet intestinal rotation, and previous abdominal operations [1, 3, 6, 7]. The disease predominantly affects female patients 40-60 years of age, as was in our case [6].

Abdominal pain, distension, naeusea, vomiting, and diarrhea or constipation are the main clinical features of cecal volvulus [1-3, 6, 7], but unfortunately clinical symptoms, signs, and routine laboratory tests are not spesific enough to lead to a prompt diagnosis [3]. Although abdominal radiography may show the features of an intestinal obstruction, including widespread small intestinal air-fluid levelsand/or distended cecum in the right abdomen, making the cecal volvulus diagnosis is difficult or impossible in most of the cases [2, 3, 6], as was in ours. Doppler USG may lead to make a definite diagnosis by showing twisted mesenteric vessels [6], and CT may be more diagnostic by demonstrating cecal distension, cecal apex in left upper quadrant, mesenteric whirl, ileocecal twist, and

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Figure 1. *Operative appearance shows torsioned and gangrenous terminal ileum and cecum/ascending colon.*

small bowel distension [4, 7]. Despite the identified diagnostic features, cecal volvulus is rarely diagnosed correctly at the time of presentation due to the low incidence of the disease [2, 3].

Surgical intervention is the only treatment of cecal volvulus [1]. If there is intestinal gangrene, resection is inevitable, as was in our patient. In nongangrenous cases, it is sufficient to simply untwist the cecum or additionally to perform a cecopexy by fixing it to the abdominal wall [1, 3], and laparoscopic technique is preferred [8].

Perioperative mortality of cecal volvulusis approximately 0-40% depending on the bowel viability or gangrene, as well as the type of the therapeutic procedure [1, 3]. Early diagnosis is essential in order to reduce the high mortality rate [2].

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